

Remarks

The non-final Office Action dated November 5, 2008 listed the following rejection: claims 4 and 18 stand rejected under 35 U.S.C. § 103(a) over Brabant *et al.* (U.S. Patent Pub. 2003/0036268). Applicant appreciates the notice that claims 5, 7, 19, 21 and 22 are allowed, but as set forth in the discussion below and without acquiescing to any rejection or averment, Applicant traverses the rejection of claims 4 and 18..

At page 3 of the Office Action, the rejection is carried by the conclusory statements, "the same materials are treated in the same manner" and with the "same result," but these statements are unsupported and incorrect. Applicant fails to recognize any prior art of record that produces the unexpected results of the claimed invention as discussed in Applicant's specification. For example, at paragraphs 27-28, Applicant's published specification states:

[0027] The growth rate of SiGe as a function of temperature using hydrogen and nitrogen as a carrier gas is shown in FIG. 1. The growth conditions for nitrogen were Pressure=40 Torr, N₂=33 slm, SiH₄=5 sccm, GeH₄=150 sccm. For the hydrogen trace the pressure was 40 Torr, H₂=33 slm, SiH₄=20 sccm and GeH₄=150 sccm.

[0028] This clearly shows that the growth rate of SiGe using nitrogen as the carrier gas can be increased by a factor of 10 at a low temperature compared to the growth rate of SiGe with hydrogen as the carrier gas. A similar effect has also been observed when growing only silicon, in which case the growth rate is multiplied by a factor of 6 (at 575° C. and with a silane flow of 400 sccm) when the carrier gas is switched from hydrogen to nitrogen.

The Examiner has not cited a reference that demonstrates or discusses such a growth rate. Thus, because the rejection is merely conclusory and contradicted by the record, under M.P.E.P. § 2144.05, the rejection cannot be maintained.

Applicant further traverses because the cited '268 publication does not constitute prior art relative to Applicant's invention date. For example, Applicant submits that the published applications does not evidence a § 102(b) rejection. Also noted at page 3 of the Office Action, the '268 publication does not disclose the subject matter set forth in claim 18 with both named gases as such.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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